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RIte Stats

Analysis of RIte Care Utilization Data

Rhode Island Department of Human Services
Center for Child and Family Health

Director's Message:

I am proud to introduce the Rhode Island Department of Human Services' first issue of RIte Stats—an analysis of the utilization of our RIte Care (managed care Medicaid) health insurance program for low-income children, families and pregnant women.

We often get requests for basic utilization data regarding our RIte Care members such as inpatient admissions, emergency room (ER) utilization and outpatient physician visits to primary care and specialist physicians and thought a periodic report that highlights this and other relevant information would be helpful to you and others in the health-care community.

While you are reviewing this first report, please also keep in mind that the RIte Care program is made up predominately of women of childbearing age (15-44) and children under the age of 15. In fact, 85% of enrollees fall into these categories. If you compare our utilization rates with other populations, please take these characteristics into consideration.

We hope you find this first issue of RIte Stats useful and will look forward to our next issue which we are planning to distribute in July.

Best Regards,

Christine C. Ferguson
Director
RI Department of Human Services (DHS)

Introduction

RIte Care is the State of Rhode Island's managed health care program for families on Medicaid, uninsured families with incomes up to 185% of the Federal Poverty Level (FPL), uninsured pregnant women and children under 19 from families with incomes up to 250% of the FPL. Eligible individuals are enrolled in a health maintenance organization (HMO or Health Plan) which is paid a monthly capitation rate for providing or arranging health services for covered members.

Eligibility for RIte Care is normally redetermined at twelve-month intervals. However, new members are guaranteed enrollment in a health plan for six months even if eligibility for Medical Assistance is lost. The program was designed to increase access to health care services for the target population by providing each member with a 'medical home' in the form of a primary care provider (PCP).

A comprehensive plan for monitoring and evaluating RIte Care has been prepared and implemented. As required by the special terms and conditions of the State's waiver from the Federal Government making RIte Care possible, participating Health Plans are required to submit utilization data to the State on a periodic basis. These data facilitate monitoring utilization and assessing the quality of care provided to RIte Care members. Other monitoring and evaluation initiatives include an annual member satisfaction survey, on-site review of Health Plan policies and procedures, selected focus group studies, and a variety of health outcomes research.

Utilization of Hospital and Outpatient Services in RIte Care: State Fiscal Year (SFY) 1996-2000

Health Plans submit quarterly hospital, service, prenatal, and pharmacy data files which are intended to record all health services provided to members during the reporting quarter and any previous quarter for which services were rendered. These files are edited by the State's central processing unit according to prescribed criteria[1] and extract files are sent to the Center for Child and Family Health (CCFH) for further review and analysis. In addition to quarterly reviews for face validity and reliability, these data are periodically validated against claims and medical records.

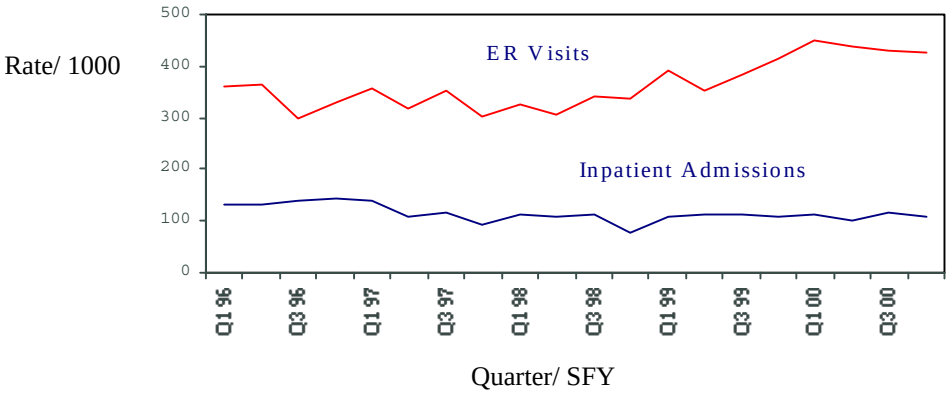
I. Inpatient Admissions per 1,000 RIte Care Members

Figure 1 shows the rate of inpatient admissions on a quarterly basis from 1st quarter SFY 1996 through 4th quarter SFY 2000 (Note that the State Fiscal Year runs from July-June). Quarterly rates have been annualized (by multiplying by 4) in order to be comparable to national and commercial benchmarks, which are commonly reported on a yearly basis. Quarterly rates are also useful in identifying seasonal changes in health services as well as noting consistency within and among Health Plans from one quarter to the next.

Inpatient admissions in RIte Care have remained remarkably constant since early SFY 1996, at just a bit above 100 admissions per 1,000 RIte Care members. Overall, inpatient admission rates were slightly higher in the early days of the program, reaching almost 150 per 1,000 members in early SFY 1997. Since that time, they have steadily decreased and have leveled off at about 100 per 1,000 after dipping as low as 80 per 1,000 during the last quarter of SFY 1998.

These rates follow national trends in the general population quite closely. According to the National Hospital Discharge Survey, inpatient admissions have declined from about 160 per 1,000 population in 1980 to about 103 per 1,000 in 1998.[2] Furthermore, rates in the northeast are about 10-15% higher than the national averages and about 25% higher among women of childbearing age. RIte Care, which falls between these numbers, is clearly within expected values of comparable utilization.

Figure 1: RIte Care Inpatient Admissions and ER Visits per 1,000 Members by Quarter: SFY 1996-2000



Average length of stay (not shown in Figure 1) has remained fairly stable as well, varying from about 3.0 to 3.5 days per admission. These rates are much lower than national data even after adjusting for age group and region. Overall, average length of stay was 5.6 in the Northeast United States in 1998 and was over 4.0 days per admission for women 15-44 and children under 15.[3]

II. ER Utilization

Unlike inpatient admission trends, ER utilization in RIte Care has been increasing since the beginning of SFY 1999. Figure 1 shows that ER visits fluctuated between 300 and 350 per 1,000 population in RIte Care's early years (1996-1998). The ER visit rate peaked at an annual rate of about 450 per 1,000 in early SFY 2000 and appears to be leveling off at about 420 for the remainder of the fiscal year. These rates are much higher than the age-adjusted national average of about 370 per 1,000 in 1998 even among children under 15,[4] but still well below the pre-RIte Care rates which often exceeded 700 per 1,000.

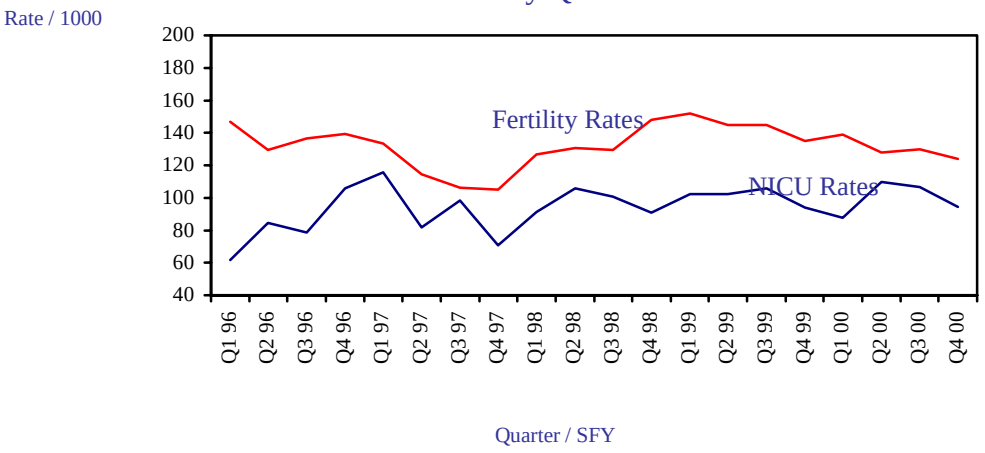
While one would expect these rates to be somewhat higher in the northeast and somewhat higher among a Medicaid population, the trend is of concern. It may be a function of program policy that went into effect in SFY 1999, which required Health Plans to pay for a medical screening examination in the ER to determine whether or not there is a true medical emergency.

III. Fertility Rates

Fertility rates (i.e., the number of live births per 1,000 females aged 15-44) are a critical factor in determining utilization patterns in RIte Care. Inpatient stays, total hospital days, primary care physician (PCP) visits, and ER utilization are influenced by pregnancy and newborn care. Figure 2 shows the fertility rate in RIte Care from SFY 1996 through 2000. The rate declined in the early years of the program, to a low of almost 100 per 1,000 women aged 15-44 in RIte Care in SFY 1997, before climbing to a high of about 150 in SFY 1998 and 1999. These rates are considerably higher than national population rates, which vary from about 65-70 per 1,000 female population aged 15-44.[5] However, it is important to note that pregnancy is an eligibility criterion for RIte Care so that higher fertility rates would be expected.

While it appears that the fertility rate is declining in RIte Care in recent quarters, it should be noted that the female population of the program is actually increasing as a result of increased enrollment of families under 185% FPL. As a result, the absolute number of births is actually increasing from a low of 3,300 in SFY 1997 to over 4,000 in SFY 2000. Therefore, demand for services in RIte Care would be expected to increase even as the rate of live births is decreasing.

Figure 2: RIte Care: Fertility Rates and NICU Admission Rates by Quarter: SFY 1996-2000



IV. NICU Utilization

Figure 2 also shows Neonatal Intensive Care Unit (NICU) admissions as a rate of live births from SFY 1996 through 2000. Admission to the NICU is more intensive and costly care than the normal newborn nursery and is reserved primarily for very sick infants. While NICU rates vary considerably from quarter to quarter, it should be noted that the number of NICU admissions is relatively small (compared to other utilization measures) and even modest changes in numbers (either the number of births or the subsequent number of NICU admissions) can have a significant effect on the rates. Furthermore, NICU stays are among the most costly services covered in RIte Care so even small changes in admission rates or length of stay can have dramatic effects on the overall costs of the program.

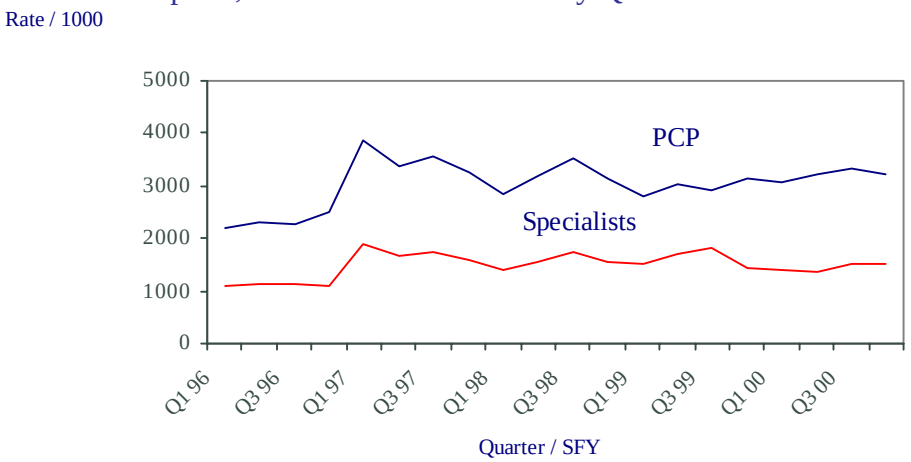
It appears that variation in NICU utilization has stabilized somewhat in the more recent years and shows some signs of leveling off. Over the past three fiscal years, rates have varied only moderately above or below about 10% (or 100 per 1,000). While these rates are fairly comparable to national rates (which vary between 8-12 percent of live births)[6], the admission rate only tells part of the story. Total days and overall costs also need to be analyzed. Future issues of this publication will cover this topic more fully.

V. Primary Care Services

Assuring access to primary care providers (PCPs) and specialist care has been one of the main goals of the RIte Care program from the very beginning. Tracking utilization of outpatient services is an important way for the State to assess progress towards accomplishing this goal. Figure 3 suggests that RIte Care members, as a group, have fairly broad access to primary care and preventive services. Average PCP visits per enrollee have remained about 3 per year for the past several years and specialist visits per enrollee varies between 1 and 2 per year. This means that RIte Care members average almost 5 physician visits per year.

These utilization rates are reasonably comparable to national population estimates based on the National Ambulatory Medical Survey[7] as well as Medicaid and commercial benchmarks.[8] Most national benchmarks estimate average outpatient physician visits at about 6 per year but these averages include the elderly and other potential high users of health services.

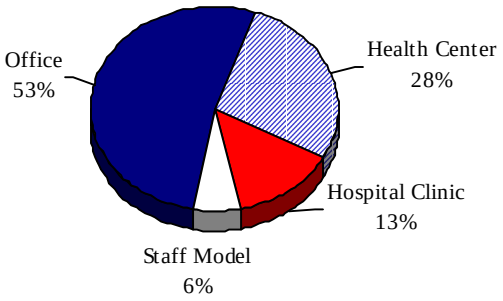
Figure 3: Outpatient Visits to PCPs and Specialists
per 1,000 RIte Care Members by Quarter: SFY 1996-2000



VI. Site of Service

Another important goal of RIte Care has been to broaden the location of care to make Medicaid members less dependent on hospital clinics and health centers for outpatient medical care. Self-reported data from the National Health Interview Survey indicates that fewer than 15% of physician visits are provided in hospital outpatient departments and over 50% are provided in physician offices.[9] Figure 4 shows a comparable distribution of outpatient services by site for SFY 1999 (which is the last year there was a staff model HMO for comparison). Note that 53% of the outpatient visits were provided in private physician offices while only 13% were provided in hospital clinics.

Figure 4: Outpatient Visits by Site of Service SFY 1999



Summary and Conclusions

These analyses suggest that the RIte Care Program is making substantial progress in reaching many of its goals. Inpatient utilization in RIte Care is comparable to national benchmarks, when adjusted for fertility rates and case mix. Utilization of primary care and specialist services is consistent with national rates and rates found in commercial insurance plans. On the other hand, ER utilization and NICU admission rates appear to require further analysis.

References

1. *Managed Care Business Design: Encounter Data Business Design*. Department of Human Services, Cranston, RI. 1996
2. *Health United States, 2000*. U.S. Department of Health and Human Services, Hyattsville, MD 2000, Table 90 and 92, p.285-289.
3. Ibid.
4. Ibid, Table 83, p. 273-274.
5. Ibid, Table 3, p 127-128.
6. *JAMA*. 1996; 276:1054-1059.
7. *Health United States*, Table 85, p 285-286.
8. *National Medicaid HEDIS Database/Benchmark Project*. The Commonwealth Fund, NY,NY. 2000.
9. *Health United States*, Table 83, p273-274.

Forthcoming Issues

1. RIte Care Demographics
2. ER Utilization
3. NICU Admissions
4. Mental Health and Substance Abuse Utilization

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